UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,755	03/06/2001	Robert Coggeshall	248588008US	3881

25096	7590	04/07/2004	

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EXAMINER
PHAN. MAN U

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/800,755	COGGESHALL, ROBERT
	Examiner	Art Unit
	Man Phan	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*20 January 2004*</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 12-35* is/are rejected.

7)☒ Claim(s) *7-11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>*6, 8*</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04) Office Action Summary Part of Paper No./Mail Date 14 .

DETAILED ACTION

1.   The application of Coggeshall for a "Contacting a computing device outside a

local network " filed 03/06/2001 has been examined. Responsive to the restriction

requirement filed on 01/20/2004, affirmation of the election has been made by applicant,

and a provisional election was made without traverse to prosecute the invention of group

I, claims 1-35. Claims 36-73 are withdrawn from further consideration by the Examiner,

37 C.F.R. ' 1.142(b), as being drawn to a non-elected invention. Claims 1-35 are pending

in the application.

Claim Rejections - 35 USC ' 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
>
> set forth in section 102 of this title, if the differences between the subject matter sought to be
>
> patented and the prior art are such that the subject matter as a whole would have been obvious at
>
> the time the invention was made to a person having ordinary skill in the art to which said subject
>
> matter pertains. Patentability shall not be negatived by the manner in which the invention was
>
> made.

3.   Claims 19-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Britton et al. (US#6,697,326) in view of Mellquist (US#6,115,545).

With respect to claims 19-24 and 29-35, the references disclose a novel method

and system for establishing communications between two computing devices, according

to the essential features of the claims. Britton et al. (US#6,697,326) provides a method of

multiple computing hosts using the Internet Protocol (IP), and to the use of the Address

Resolution Protocol (ARP) and to ensuring that only a single and consistent reply is

generated in response to each ARP request. Britton teaches in Fig. 1 a block diagram

illustrated a host containing three adapters, two of which are connected to a first network

(TR1), and the third being connected to a different network (TR2) in communications

(Col. 1, lines 36 plus and Col. 9, lines 45 plus). The Address Resolution Protocol (ARP),

used in TCP/IP networks such as the Internet, provides to requesting hosts a mapping

between an IP address and a media access control (MAC) address. A host which needs to

learn the MAC address for a given IP address broadcasts an ARP request containing the

IP address to all routers and hosts in a network. The requests are received by adapters at

the hosts; it is an adapter that owns an IP address and a corresponding MAC address. The

requesting host learns the MAC address corresponding to an IP address by virtue of an

ARP reply to an ARP request. An ARP reply is sent from the host that owns the

corresponding adapter or, in some cases, an adapter is arranged to perform ARP

processing and it responds to ARP requests instead of the host (Col. 1, lines 14-32). In

the same field of endeavor, Mellquist (US#6,115,545) discloses in Fig. 1 a simplified

block diagram of a local network 32 with a local console 34 and a network device 33 are

shown connected to. Local network 32 is connected to Internet 30 through a gateway 31

for establishing a network connection to the network device (Col. 4, lines 35 plus, and

Col. 6, lines 63 plus).

Regarding claims 25-28, Mellquist further teaches in Fig. 3 a data flow diagram

illustrated IP configuration of a network device in establishing communications, in which

a network device connected to a local network is configured using a module operating

within a console connected to the local network. Once activated, the module obtains an

unused network address. After obtaining the unused network address, the console waits

for receipt of a request from the network device. Upon receipt of the request, the console

forwards to the network device a response. The response includes the unused address

along with subnet and gateway information for the console. The console then establishes

a network connection to the network device and displays on a monitor for the console, an

address value, a subnet mask value and a gateway value for the network device (Col. 3,

lines 30 plus).

One skilled in the art would have recognized the need for effectively and

efficiently establishing communications between two computing devices utilizing ARP in

a system of connected IP networks, and would have applied Mellquist's teaching of the

IP configuration of network device connected to a local network into Britton's novel use

of the ARP in a system of connected IP networks. Therefore, It would have been obvious

to a person of ordinary skill in the art at the time of the invention was made to apply

Mellquist's automatic IP address allocation and assignment into Britton's method and

apparatus for generating replies to address resolution protocol (ARP) requests with the

motivation being to provide a method and system for establishing contact with a

computing device that is outside the distinguished computer network.

4.   Claims 1-6 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Britton et al. (US#6,697,326) in view of Mellquist (US#6,115,545) as applied to the

claims above, and further in view of O'Toole et al. (US#6,345,294).

        With respect to claims 1-6 and 12-17, Britton et al. (US#6,697,326) and Mellquist

(US#6,115,545) disclose the claimed limitations discussed in paragraph 3 above.

However, these claims differ from the claims above in that the claims require the feature

of using the logical target address of the message to communicate with the second node.

In the same field of endeavor, O'Toole et al.(US#6,345,294) discloses such configuration

establishing communications between computing devices in different networks.

O'Toole teaches in Fig. 4 a flow chart illustrated the boot procedure of an appliance in

establishing communications, wherein the booting parameters comprise an IP address of

the appliance. With reference to Fig. 4, the appliance, upon being powered on (step 100),

makes use of known protocols of boot or DHCP requests (step 102) to obtain a source of

network parameters. The boot server or DHCP server is a computer that acts as a server

in the local networking environment and that responds to certain types of route requests

messages. A boot server or DHCP server typically responds with a small message that

contains some parameters that the requesting computer needs to be given (step 104).

These parameters typically include the IP address of the appliance that is attempting to

boot, the subnet mask of the appliance, the IP addresses of one or more routers (typically

one router closest to the appliance, such as a router within the same building as the

appliance, which may be connected directly to the Internet or which instead may be

internal for a large building), one or more name servers (typically two or more name

servers; computers, in order to operate properly, often need to be told the address of the

name server that is used to translate the names of computers, including addresses of

computers), as well as numerous optional parameters. The appliance can construct

candidate network parameters both by communicating with a boot server or DHCP

server, as described above, and by simply observing other traffic on the network. If the

appliance has received candidate network parameters from a boot server or a DHCP

server (step 104), it will test these parameters by attempting to send and receive network

messages (step 106) (Col. 7, lines 40plus).

One skilled in the art would have recognized the need for effectively and

efficiently establishing communications between two computing devices utilizing ARP in

a system of connected IP networks, and would have applied O'Toole's configuring the

second node to receive messages at the logical target address of the message, and

Mellquist's teaching of the IP configuration of network device connected to a local

network into Britton's novel use of the ARP in a system of connected IP networks.

Therefore, It would have been obvious to a person of ordinary skill in the art at the time

of the invention was made to apply O'Toole's methods and apparatus for remote

configuration of an appliance on a network, and Mellquist's automatic IP address

allocation and assignment into Britton's method and apparatus for generating replies to

address resolution protocol (ARP) requests with the motivation being to provide a

method and system for establishing contact with a computing device that is outside the

distinguished computer network.

Allowable Subject Matter

5.   Claims 7-11 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

6.   The following is an examiner's statement of reasons for the indication of

allowable subject matter: The closest prior art of record fails to disclose or suggest

wherein it is determined that no address resolution response to the detected address

resolution request is transmitted from a node in the first network other than the first node

if at least a threshold period of time elapses after the address resolution request is

detected/if the detected address resolution request is rebroadcast at least a threshold

number of times without a response to the detected address resolution request being

detected, as specifically recited in claims 7-9; whether in response to determining that no

address resolution response to the detected address resolution request is transmitted from

a node in the first network other than the first node,. Sending a gratuitous address

resolution protocol request identifying the first node as the owner of the logical target

address contained in the detected address resolution request, as recited in claims 10-11.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

The Miyazaki et al. (US#5,517,488) is cited to show the method of load

distribution for message processing in host system in local area network.

The Hirviniemi (US#5,802,285) is cited to show the wide area network (WAN)

interface for a transmission control protocol/internet protocol (TCP/IP) in a local area

network (LAN).

The Massarani (US#6,393,484) is cited to show the system and method for

controlled access to shared-medium public and semi-public IP networks.

The Thubert et al. (US#6,603,769) is cited to show the method and system for

improving traffic operation in an internet environment.

The Mouko et al. (US#6,678,732) is cited to show the dynamic host configuration

protocol server for allocating IP addresses to a plurality of clients.

The Tsuruoka (US#6,101,189) is cited to show gateway apparatus and packet

routing method.

The Hashimoto (US#5,781,552) is cited to show the automatic address setter

capable of determining a network address of a host station.

The Gioquindo et al. (US#6,330,616) is cited to show the system for

communications of multiple partitions employing host network interface, and ARP for

constructing data frame format according to client format.

The Arndt et al. (US#5,708,654) is cited to show the method for detecting proxy ARP replies from devices in LAN.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (703)305-1029.

The examiner can normally be reached on Mon - Fri from 6:30 to 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

9.   **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 305-9051, (for formal communications intended for entry)

Or: (703) 305-3988 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal

Drive, Arlington. VA., Sixth Floor (Receptionist).

Mphan

04/01/2004.

MAN PHAN
PATENT EXAMINER